BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK: Improvements to CC Roads and CC Drains works at Kogilu Layout in Ward No.05

Byatarayanapura Sub Division

MEASUREMENT SHEET

FIRST and FINAL BILL

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
Item No. 01		**Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. and as per the directions of the Engineer-in-charge of the work .**								
			Cum							
		Vide Total Executed Quantity from Pre measurement sheet page no. 1-3						1361.89		
							Total	1361.89	137.80	187668.68
Item No. 02		**Removing B S Slab of Drain and stacking 7.5MM Thick, and as per the directions of the Engineer-in-charge of the work .**								
			Sqm							
		Vide Total Executed Quantity from Pre measurement sheet page no. 4						445.17		
							Total	445.17	104.94	46716.14
Item No. 03		**RRefixing stone slabs of drains and pointing in C.M (1:3) and as per the directions of the Engineer-in-charge of the work .**								
		1st main Bond Road								
Measurements Taken On :										
2	14		Sqm	1	12.00	1.65		19.80		
16	24		Sqm	1	8.00	1.65		13.20		
26	36		Sqm	1	10.00	1.65		16.50		
		1st main Bond Road								
1	6		Sqm	1	5.00	1.65		8.25		
7	11.8		Sqm	1	4.80	1.65		7.92		
		1st main Bond Road								
0	12		Sqm	1	12.00	1.65		19.80		
16	20		Sqm	1	4.00	1.65		6.60		
		1st main Bond Road								
2	14		Sqm	1	12.00	1.65		19.80		
16	28		Sqm	1	12.00	1.65		19.80		
32	44		Sqm	1	12.00	1.65		19.80		
46	59		Sqm	1	13.00	1.65		21.45		
61	74		Sqm	1	13.00	1.65		21.45		
77	88		Sqm	1	11.00	1.65		18.15		
91	98		Sqm	1	7.00	1.65		11.55		
		1st main Bond Road								
2	14		Sqm	1	12.00	1.65		19.80		
16	33.5		Sqm	1	17.50	1.65		28.88		
		1st main Bond Road								
1	14		Sqm	1	13.00	1.65		21.45		
17	30.5		Sqm	1	13.50	1.65		22.28		

Checked 13/2/2020

RUDRAPRASAD CONSULTANTS BANGALORE

Contractor

Assistant Executive Engineer, PMC
Byatarayanapura Sub-division
KRIDL, BBMP, Bangalore

Assistant Engineer

Assistant Executive Engineer 13/2/2020

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
		1st main Bond Road								
0	12		Sqm	1	12.00	1.65		19.80		
12	20		Sqm	1	8.00	1.65		13.20		
		1st main Bond Road								
2	14		Sqm	1	12.00	1.65		19.80		
16	33.5		Sqm	1	17.50	1.65		28.88		
		1st main Bond Road								
2	14		Sqm	1	12.00	1.65		19.80		
17	33.5		Sqm	1	16.50	1.65		27.23		
							TOTAL	**445.17**	**111.30**	**49547.42**
Item No. 04		**Providing granite slabs of selected quality roughly dressed and fixed in cement mortar(1:6) including fixing curing etc and as per the directions of the Engineer-in-charge of the work .**								
Measurements Taken On :										
0	2		Sqm	1	2.00	1.65		3.30		
14	16		Sqm	1	2.00	1.65		3.30		
24	26		Sqm	1	2.00	1.65		3.30		
36	38.5		Sqm	1	2.50	1.65		4.13		
		1st main Bond Road								
0	1		Sqm	1	1.00	1.65		1.65		
6	7		Sqm	1	1.00	1.65		1.65		
		1st main Bond Road								
12	15		Sqm	1	3.00	1.65		4.95		
15	16		Sqm	1	1.00	1.65		1.65		
20	21		Sqm	1	1.00	1.65		1.65		
		1st main Bond Road								
0	2		Sqm	1	2.00	1.65		3.30		
14	16		Sqm	1	2.00	1.65		3.30		
28	32		Sqm	1	4.00	1.65		6.60		
44	46		Sqm	1	2.00	1.65		3.30		
59	61		Sqm	1	2.00	1.65		3.30		
74	77		Sqm	1	3.00	1.65		4.95		
88	91		Sqm	1	3.00	1.65		4.95		
98	99		Sqm	1	1.00	1.65		1.65		
		1st main Bond Road								
0	2		Sqm	1	2.00	1.65		3.30		
14	16		Sqm	1	2.00	1.65		3.30		
33.5	37		Sqm	1	3.50	1.65		5.78		
		1st main Bond Road								
0	1		Sqm	1	1.00	1.65		1.65		
14	17		Sqm	1	3.00	1.65		4.95		
30.5	33		Sqm	1	2.50	1.65		4.13		
		1st main Bond Road								
12	15		Sqm	1	3.00	1.65		4.95		
20	25		Sqm	1	5.00	1.65		8.25		

Checked 13/2/2020

Checked 13/2/2020

Assistant Executive Engineer
Byatarayanapura Sub-division
KRIDL, BBMP Bangalore

Contractor

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
		1st main Bond Road								
0	2		Sqm	1	2.00	1.65		3.30		
14	16		Sqm	1	2.00	1.65		3.30		
33.5	37		Sqm	1	3.50	1.65		5.78		
		1st main Bond Road								
0	2		Sqm	1	2.00	1.65		3.30		
14	17		Sqm	1	3.00	1.65		4.95		
33.5	36		Sqm	1	2.50	1.65		4.13		
							TOTAL	**117.98**	**742.00**	**87537.45**
Item no.05		**Construction of Rolled Cement Concrete mix 1:4:8 OPC cement @180kgs, with 25mm and down size graded granite metal coarse aggregate at 0.85cum and fine aggregates @0.57cum base course with coarse and fine aggregate conforming to IS:383, aggregate cement ratio 12:1 and minimum cement content of 180kg/ cum, aggregate gradation to be as per Table 600-4 after blending, mixing in batching plant at optimum moisture content, transporting to site, laying with a paver with electronic sensor, compacting with 8-10 tonnes smooth wheeled vibratory roller to achieve, the designed flexural strength,**									
		Cum								
		Vide Total Executed Quantity from Pre measurement sheet page no. 5-6						263.87		
							Total	263.87	**3606.12**	**951553.20**
Item no.06		**Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. and as per the directions of the Engineer-in-charge of the work .**								
		Cum								
		Vide Total Executed Quantity from Pre measurement sheet page no. 7						25.68		
							Total	25.68	**4871.76**	**125106.80**
Item no.07		**Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. and as per the directions of the Engineer-in-charge of the work .**								
		Cum								
		Vide Total Executed Quantity from Pre measurement sheet page no. 8						19.26		
							Total	19.26	**5305.30**	**102180.08**
Item no.08		**Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications.and as per the directions of the Engineer-in-charge of the work .**								
		Sqm								
		Vide Total Executed Quantity from Pre measurement sheet page no. 9-10						1996.75		
							Total	1996.75	**309.52**	**618033.44**
Item no.09		**Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. and as per the directions of the Engineer-in-charge of the work .**								
		Cum								
		Vide Total Executed Quantity from Pre measurement sheet page no. 11						9.72		
							Total	9.72	**5627.54**	**54725.01**

Checked 13/2/2020

RVPPRASAD CONSULTANTS BANGALORE PMC

Assistant Executive Engineer, Byatarayanapura Sub-division KRIDL, BBMP Bangalore

Contractor

Assistant Engineer

13/2/2020
Assistant Executive Engineer

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
Item no.10		Providing Flush pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.and as per the directions of the Engineer-in-charge of the work .								
Measurements Taken On :										
		For Culvert								
			Cum	2	6.30		0.45	5.67		
			Cum	2	6.00		0.70	8.40		
			Cum	2	2.50		0.70	3.50		
			Cum	2	3.70		0.70	5.18		
			Cum	2	4.40		0.70	6.16		
		1st Main 4thA Cross	Cum	2	6.10		0.70	8.54		
		5th Cross	Cum	2	8.40		0.70	11.76		
			Cum	2	5.40		0.70	7.56		
							TOTAL	56.77	223.66	12697.18
Item no.11		Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and sown size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compcted for walls and bottom including centring shuttering cost of material HOM of machinary curing etc., complete execluding cost of steel as per MORTH specification and as per the directions of the Engineer-in-charge of the work .								
Measurements Taken On :		12/11/2019 &, 18/11/2019 , 19/11/2019								
		Bottom Raft								
		Kogilu Layout								
		bande Main Road								
0	16		Cum	1	16.00	1.10	0.15	2.64		
22	29.7	16 to 22 Culvert	Cum	1	7.70	1.10	0.15	1.27		
29.7	31		Cum	1	1.30	1.10	0.15	0.21		
31	46		Cum	1	15.00	1.10	0.15	2.48		
46	61		Cum	1	15.00	1.10	0.15	2.48		
61	76		Cum	1	15.00	1.10	0.15	2.48		
76	91		Cum	1	15.00	1.10	0.15	2.48		
91	96.1		Cum	1	5.10	1.10	0.15	0.84		
104.7	119.7	96.1 to 104.7Culvert	Cum	1	15.00	1.10	0.15	2.48		
119.7	134.7		Cum	1	15.00	1.10	0.15	2.48		
134.7	149.7		Cum	1	15.00	1.10	0.15	2.48		
149.7	164.7		Cum	1	15.00	1.10	0.15	2.48		
164.7	177.2		Cum	1	12.50	1.10	0.15	2.06		
182.6	197.6	177.2 to 182.6 Culvert	Cum	1	15.00	1.10	0.15	2.48		
197.6	212.6		Cum	1	15.00	1.10	0.15	2.48		
212.6	227.6		Cum	1	15.00	1.10	0.15	2.48		
227.6	242.6		Cum	1	15.00	1.10	0.15	2.48		
249.9	264.9	242.6 to 249.9 Culvert	Cum	1	15.00	1.10	0.15	2.48		
264.9	279.9		Cum	1	15.00	1.10	0.15	2.48		
279.9	297.9		Cum	1	18.00	1.10	0.15	2.97		
297.9	309.9		Cum	1	12.00	1.10	0.15	1.98		
309.9	324.9		Cum	1	15.00	1.10	0.15	2.48		
324.9	339.9		Cum	1	15.00	1.10	0.15	2.48		
339.9	354.9		Cum	1	15.00	1.10	0.15	2.48		
354.9	369.9		Cum	1	15.00	1.10	0.15	2.48		
369.9	384.9		Cum	1	15.00	1.10	0.15	2.48		
384.9	399.9		Cum	1	15.00	1.10	0.15	2.48		
399.9	414.9		Cum	1	15.00	1.10	0.15	2.48		

Checked & found Correct 13/2/2020

C&FC 13/2/2020

RUDRAPRASAD CONSULTANTS BANGALORE

Assistant Executive Engineer
Contractor Byatarayanapura Sub-division, PMC
KRIDL, BBMP Bangalore

Assistant Engineer

Assistant Executive Engineer 13/2/2020

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
31	46		Sqm	1	15.00	0.90		13.50		
46	61		Sqm	1	15.00	0.90		13.50		
61	76		Sqm	1	15.00	0.90		13.50		
76	91		Sqm	1	15.00	0.90		13.50		
91	96.1		Sqm	1	5.10	0.90		4.59		
104.7	119.7	96.1 to 104.7Culvert	Sqm	1	15.00	0.90		13.50		
119.7	134.7		Sqm	1	15.00	0.90		13.50		
134.7	149.7		Sqm	1	15.00	0.90		13.50		
149.7	164.7		Sqm	1	15.00	0.90		13.50		
164.7	177.2		Sqm	1	12.50	0.90		11.25		
182.6	197.6	177.2 to 182.6 Culvert	Sqm	1	15.00	0.90		13.50		
197.6	212.6		Sqm	1	15.00	0.90		13.50		
212.6	227.6		Sqm	1	15.00	0.90		13.50		
227.6	242.6		Sqm	1	15.00	0.90		13.50		
249.9	264.9	242.6 to 249.9 Culvert	Sqm	1	15.00	0.90		13.50		
264.9	279.9		Sqm	1	15.00	0.90		13.50		
279.9	297.9		Sqm	1	18.00	0.90		16.20		
297.9	309.9		Sqm	1	12.00	0.90		10.80		
309.9	324.9		Sqm	1	15.00	0.90		13.50		
324.9	339.9		Sqm	1	15.00	0.90		13.50		
339.9	354.9		Sqm	1	15.00	0.90		13.50		
354.9	369.9		Sqm	1	15.00	0.90		13.50		
369.9	384.9		Sqm	1	15.00	0.90		13.50		
384.9	399.9		Sqm	1	15.00	0.90		13.50		
399.9	414.9		Sqm	1	15.00	0.90		13.50		
414.9	429.9		Sqm	1	15.00	0.90		13.50		
429.9	442.9		Sqm	1	13.00	0.90		11.70		
451.4	466	442.9 to 451.4 Temple No Drain	Sqm	1	14.60	0.90		13.14		
472.3	487.3	466 to 472.3 Culvert	Sqm	1	15.00	0.90		13.50		
487.3	502.3		Sqm	1	15.00	0.90		13.50		
502.3	508.4		Sqm	1	6.10	0.90		5.49		
		Aruna Communication								
		LHS								
0	17		Sqm	1	17.00	0.90		15.30		
		RHS								
0	15		Sqm	1	15.00	0.90		13.50		
15	23		Sqm	1	8.00	0.90		7.20		
							TOTAL	**455.67**	**2337.00**	**1064900.79**

Checked. 15/2

Checked & found Correct 13/2/2020

Item no.16	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge of work.**
Measurements Taken On :	24/01/2020 to 27/01/2020

		For Culverts								
			Sqm	1	6.30	1.50		9.45		
			Sqm	1	6.00	1.50		9.00		
			Sqm	1	2.50	1.50		3.75		
			Sqm	1	3.70	1.50		5.55		
			Sqm	1	4.40	1.50		6.60		

13/2/2020

R.V.P.P. 15/2

RAJAPRASAD CONSULTANTS BANGALORE

Contractor

Assistant Executive Engineer, CPMC
Byatarayanapura Sub-division
KRIDL, BBMP, Bangalore

Assistant Engineer

Assistant Executive Engineer 13/2/2020

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
		1st Main 4thA Cross	Sqm	1	6.10	1.50		9.15		
		5th Cross	Sqm	1	8.40	1.50		12.60		
			Sqm	1	5.40	1.50		8.10		
							TOTAL	64.20	5418.00	347835.60
Item no.17		Providing and laying cement concrete using 20mm and down size granite jelly of ready mixed concrete (RMC)for R.C.C works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, form works and scaffoldings to withstand pumping of concrete, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) Ready mixed Cement concrete M-20 for raft foundation, column footing, main and secondary beams. and as per the directions of the Engineer-in-charge of the work								
Measurements Taken On :		26/11/2019								
		For Cc Road								
		St michel School Road								
0	15		Cum	1	15.00	5.00	0.15	11.25		
15	30		Cum	1	15.00	4.90	0.15	11.03		
30	45		Cum	1	15.00	4.90	0.15	11.03		
45	60		Cum	1	15.00	4.90	0.15	11.03		
60	75		Cum	1	15.00	4.90	0.15	11.03		
75	90		Cum	1	15.00	4.90	0.15	11.03		
90	98		Cum	1	15.00	4.95	0.15	11.14		
			Cum	1	8.00	5.05	0.15	6.06		
		Jai Bheem Nagar								
0	15		Cum	1	15.00	4.75	0.15	10.69		
15	17		Cum	1	2.00	5.05	0.15	1.52		
		Ambedkar Bhavan Road								
0	15		Cum	1	15.00	5.50	0.15	12.38		
15	17		Cum	1	2.00	5.50	0.15	1.65		
							TOTAL	98.78	5210.96	514712.57
Item no.18		Vaccum De- watering with vaccum pump and suction mat and compaction with skin flater clubbed with floatiog disc including cost of generator, HOM of machinery Sereed Vibratory Power Floaterblade and diisc etc. with all lead and lift and as per the directions of the Engineer-in-charge of the work								
Measurements Taken On :		26-11-2019 26/11/2019 .								
		For Cc Road								
		St michel School Road								
0	15		Sqm	1	15.00	5.00		75.00		
15	30		Sqm	1	15.00	4.90		73.50		
30	45		Sqm	1	15.00	4.90		73.50		
45	60		Sqm	1	15.00	4.90		73.50		
60	75		Sqm	1	15.00	4.90		73.50		
75	90		Sqm	1	15.00	4.95		74.25		
90	98		Sqm	1	8.00	5.05		40.40		
		Jai Bheem Nagar								
0	15		Sqm	1	15.00	4.75		71.25		
15	17		Sqm	1	2.00	5.05		10.10		
		Ambedkar Bhavan Road								
0	15		Sqm	1	15.00	5.50		82.50		
15	17		Sqm	1	2.00	5.50		11.00		
							TOTAL	658.50	72.08	47464.68

Checked 15/2

Checked 15/2

PRAPRASAD CONSULTANTS BANGALORE PMC

Assistant Executive Engineer
Byatarayanapura Sub-division
KRIDL, BBMP Bangalore

Contactor

Assistant Engineer

Assistant Executive Engineer 13/2/2020.

Chainage From	Chainage To	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in RS.	Amount in RS.
Item no.19		**Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete and as per the directions of the Engineer-in-charge of the work .**								
			m							
		Vide Total Executed Quantity from Pre measurement sheet page no. 16						357.60		
							Total	357.60	394.32	141008.83
Item no.20		**Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge**								
Measurements Taken On :		28-01-2020 To 03-02-2020 .								
		Kogilu Layout								
		bande Main Road	Nos							
0	16		m	1	16.00			16.00		
22	29.7	16 to 22 Culvert	m	1	7.70			7.70		
29.7	31		m	1	1.30			1.30		
31	46		m	1	15.00			15.00		
46	61		m	1	15.00			15.00		
61	76		m	1	15.00			15.00		
76	91		m	1	15.00			15.00		
91	96.1		m	1	5.10			5.10		
104.7	119.7	96.1 to 104.7Culvert	m	1	15.00			15.00		
119.7	134.7		m	1	15.00			15.00		
134.7	149.7		m	1	15.00			15.00		
149.7	164.7		m	1	15.00			15.00		
164.7	177.2		m	1	12.50			12.50		
182.6	197.6	177.2 to 182.6 Culvert	m	1	15.00			15.00		
197.6	212.6		m	1	15.00			15.00		
212.6	227.6		m	1	15.00			15.00		
227.6	242.6		m	1	15.00			15.00		
249.9	264.9	242.6 to 249.9 Culvert	m	1	15.00			15.00		
264.9	279.9		m	1	15.00			15.00		
279.9	297.9		m	1	18.00			18.00		
297.9	309.9		m	1	12.00			12.00		
309.9	324.9		m	1	15.00			15.00		
324.9	339.9		m	1	15.00			15.00		
339.9	354.9		m	1	15.00			15.00		
354.9	369.9		m	1	15.00			15.00		
369.9	384.9		m	1	15.00			15.00		
384.9	399.9		m	1	15.00			15.00		
399.9	414.9		m	1	15.00			15.00		
414.9	429.9		m	1	15.00			15.00		
429.9	442.9		m	1	13.00			13.00		
451.4	466	442.9 to 451.4 Temple No Drain	m	1	14.60			14.60		
472.3	487.3	466 to 472.3 Culvert	m	1	15.00			15.00		
487.3	502.3		m	1	15.00			15.00		

checked. 1/2

RAJAPRASAD CONSULTANTS BANGALORE

Contactor PMC Assistant Engineer Assistant Executive Engineer

Assistant Executive Engineer
Byatarayanapura Sub-division
KRIDL, BBMP Bangalore